



# Indiana Crop & Weather Report

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## CROP REPORT FOR WEEK ENDING SEPTEMBER 9

### AGRICULTURAL SUMMARY

Farmers made good progress harvesting corn in the southwestern areas of the state, according to the Indiana Agricultural Statistics Service. Showers and thunderstorms in many areas halted field activities during the weekend. Soybean fields continue to turn color and shed leaves. Soybean harvest is underway in a few early maturing fields. Seed corn and silage harvest continued. Pastures improved.

### FIELD CROPS REPORT

There were 6.1 **days suitable for fieldwork**. Corn **condition** is rated 73 percent good to excellent compared with 70 percent last week and 73 percent last year at this time. Forty-five percent of the corn acreage is **mature** compared with 44 percent last year and 29 percent for the average. By region, 26 percent of the corn acreage is mature (safe from frost) in the north, 50 percent in the central region and 72 percent in the south. Ninety-seven percent of the corn acreage is in the **dent** stage compared with 96 percent last year and 74 percent for the 5-year average.

Soybean **condition** is rated 72 percent good to excellent compared with 68 percent last week and 62 percent last year. Thirty-eight percent of the soybean acreage is **shedding leaves** compared with 49 percent last year and 32 percent for the average. Eight percent of the soybean acreage is **mature** compared with 14 percent last year and 11 percent for the average. Other activities during the week included, preparing equipment for the fall harvest, baling hay, mowing roads, sweeping grain bins and care of livestock.

### LIVESTOCK, PASTURE AND RANGE REPORT

**Pasture condition** is rated 4 percent excellent, 40 percent good, 33 percent fair, 16 percent poor and 7 percent very poor. Fourth cutting of **alfalfa** continued on some farms. **Tobacco** harvest is 62 percent complete compared with 48 percent for the average. Livestock are in mostly good condition. One percent of the **winter wheat** acreage is seeded, on par with last year and the average.

### CROP PROGRESS TABLE

Crop	This Week	Last Week	Last Year	5-Year Avg
Corn Dent	97	93	96	74
Corn Mature	45	24	44	29
Corn Harvested	3	NA	4	2
Soybeans Shedding Lv	38	20	49	32
Soybeans Mature	8	2	14	11
Tobacco Harvested	62	46	65	48

### CROP CONDITION TABLE

Crop	Very Poor	Poor	Fair	Good	Excel-lent
Corn	2	5	20	54	19
Soybeans	2	5	21	56	16
Pasture	7	16	33	40	4

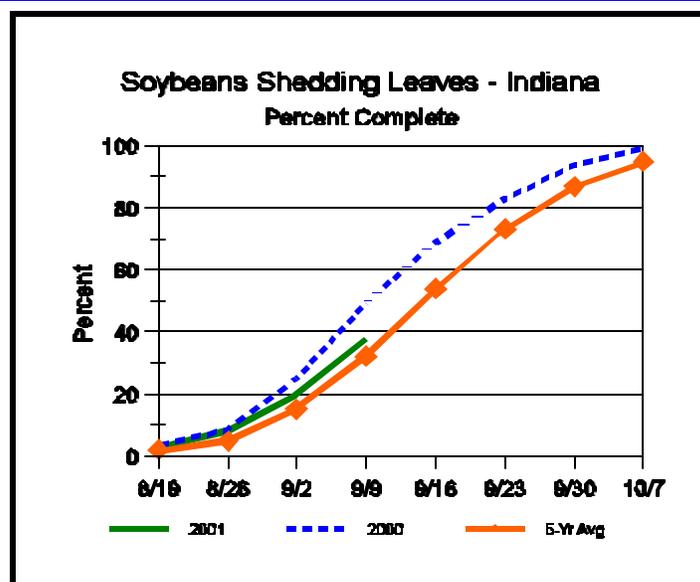
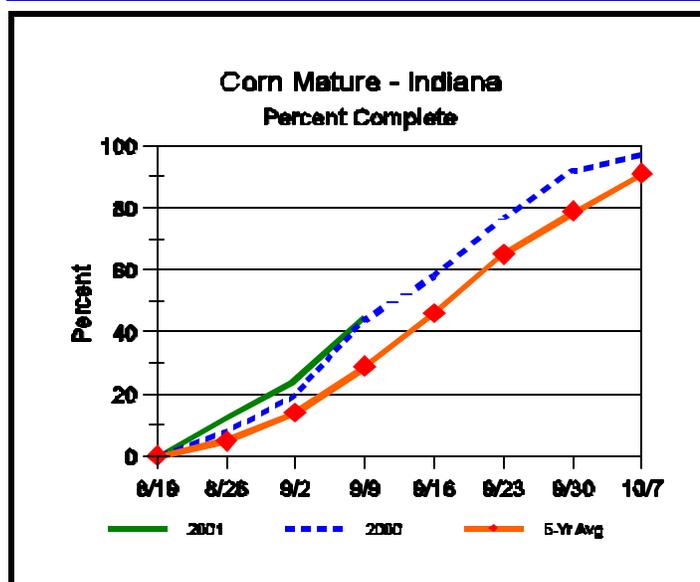
### SOIL MOISTURE & DAYS SUITABLE FOR FIELDWORK TABLE

	This Week	Last Week	Last Year
<b>Topsoil</b>			
Very Short	4	3	7
Short	18	18	20
Adequate	72	72	69
Surplus	6	7	4
<b>Subsoil</b>			
Very Short	9	9	9
Short	26	28	24
Adequate	62	61	63
Surplus	3	2	4
<b>Days Suitable</b>	6.1	4.8	6.1

### CONTACT INFORMATION

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## Crop Progress



### Other Agricultural Comments And News

#### Winter Wheat Decisions 2001 - I. Rotation Benefits Resulting From Winter Wheat

Indiana's recent 25% reduction in wheat acreage in 2001, relative to that harvested in 2000, is the latest in a long series of acreage reductions for what used to be Indiana's premier grain crop. The 2001 acreage was less than half of that a decade earlier.

Although planting less wheat may have been the most prudent financial decision relative to the short-term economics associated with corn and soybean alternatives, crop sequence choices should always be made in the context of profitability over the whole rotation cycle. The following benefits of winter wheat need to be factored in to grower decisions regarding wheat planting intentions:

1. Winter wheat generally increases corn yields relative to corn after soybeans alone in the rotation. In the few long-term experiments conducted, the corn yield increase after wheat (versus after soybeans) ranges from 0 to 10%. The additional corn yield advantage with wheat in rotation compared to soybeans alone are most frequent when soils are high in clay content and (or) lower in organic matter contents, and when corn plants encounter moisture stress in mid-season. Corn yield gains of 5% or more after wheat versus soybeans are more consistent when winter wheat is followed by cover crops such as red clover.

2. The nitrogen credit normally applied to soybeans is generally also appropriate when winter wheat is the prior crop. Nitrogen fertilizer rates recommended after wheat are often 40 lb / ac less than those for corn after corn.

Although wheat doesn't fix nitrogen like soybeans, wheat straw and stubble immobilizes much less nitrogen the following spring than decomposing corn residues do.

3. Soybean yields are also higher when in rotations involving winter wheat versus just corn-soybeans. The most conclusive evidence for the advantage of a 3-year (corn-soybean-winter wheat) versus a 2-year rotation (corn-soybean) is that resulting from a USDA-sponsored experiment at the Agronomy Research Center near West Lafayette (Table 1). In that study, soybean yields were 10% to 18% higher after corn than after soybeans. However, soybean yields in the corn-soybean-wheat rotation were an additional 7% to 10% higher than in the corn-soybean rotation.

There is also evidence from a 20 year experiment in Ontario, Canada that soybean yield gains with wheat in the rotation (versus just corn and soybeans) seem to become more evident as the number of years of soybean history accumulate in a particular field. Rotation studies in Minnesota confirmed that the actual percent of soybean yield response to rotation was higher in low yielding years than in high yielding years. Thus, farmers with soybean yields consistently above 60 bu/acre may benefit less from wheat than those with 40 bu / acre yield averages.

The relative yield benefits of growing soybeans every third or fourth year (instead of every second year) vary depending on disease incidence (e.g. root rots) the

(Continued on Page 4)

# Weather Information Table

**Week ending Sunday September 9, 2001**

Station	Past Week Weather Summary Data							Accumulation				
	Air Temperature				Precip.		Avg	April 1, 2001 thru September 9, 2001				
							4 in	Precipitation		GDD Base 50°F		
	Hi	Lo	Avg	DFN	Total	Days	Soil Temp	Total	DFN	Days	Total	DFN
<b>Northwest (1)</b>												
Valparaiso_Ag	87	55	72	+6	1.17	4		19.52	-1.60	77	2796	+307
Wanatah	87	51	70	+5	1.42	3	76	22.89	+2.36	72	2556	+174
Wheatfield	87	49	71	+5	1.21	2		19.65	-0.36	67	2781	+343
Winamac	87	52	71	+4	1.84	3	76	22.96	+2.77	70	2760	+250
<b>North Central(2)</b>												
Logansport	85	55	71	+4	0.95	2		27.62	+8.24	71	2799	+213
Plymouth	87	55	71	+4	1.46	3		21.24	+0.87	71	2623	-12
South_Bend	87	56	72	+6	1.42	3		20.53	+0.76	67	2778	+302
Young_America	89	52	71	+4	1.00	3		24.14	+4.76	65	2839	+253
<b>Northeast (3)</b>												
Bluffton	88	53	71	+4	1.22	3	72	20.30	+0.98	70	2813	+161
Fort_Wayne	88	51	71	+4	0.44	3		22.12	+4.02	67	2780	+192
<b>West Central (4)</b>												
Crawfordsville	88	49	72	+4	1.30	3	73	20.10	-1.15	67	2756	-12
Perrysville	88	54	73	+5	1.20	2	79	18.19	-3.33	61	2964	+251
Terre_Haute_Ag	93	54	75	+5	1.35	2	77	25.74	+4.32	60	3201	+309
W_Lafayette_6NW	88	53	73	+5	0.83	2	78	18.71	-1.38	62	2928	+355
<b>Central (5)</b>												
Castleton	87	57	73	+4	0.62	1		23.38	+2.63	63	3033	+175
Greenfield	89	62	77	+8	1.50	3		26.72	+4.56	69	3221	+467
Greensburg	86	59	74	+6	0.65	3		23.42	+1.79	73	3148	+464
Indianapolis_AP	89	60	75	+6	1.03	3		22.28	+2.08	56	3201	+331
Indianapolis_SE	87	57	72	+3	1.60	2		21.74	+0.99	64	2931	+73
Tipton_Ag	88	51	71	+4	1.39	3	68	19.23	-1.17	59	2707	+208
<b>East Central (6)</b>												
Farmland	87	50	70	+4	0.79	3	69	24.15	+4.35	69	2745	+304
New_Castle	85	54	70	+3	0.53	2		28.36	+7.07	66	2495	-6
<b>Southwest (7)</b>												
Dubois_Ag	91	61	77	+7	2.08	2	80	22.12	-1.18	60	3360	+442
Evansville	90	66	78	+6	1.00	3		22.05	+1.74	63	3622	+297
Freelandville	90	58	75	+6	0.77	2		20.36	-0.82	48	3323	+336
Shoals	90	56	75	+6	0.98	2		21.57	-1.41	58	3172	+278
Vincennes_5NE	92	61	78	+8	1.64	4	75	18.21	-2.97	48	3471	+484
<b>South Central(8)</b>												
Bloomington	88	58	74	+5	0.98	2		21.82	+0.08	62	3168	+234
Tell_City	91	62	78	+7	1.11	2		17.97	-5.39	45	3563	+365
<b>Southeast (9)</b>												
Scottsburg	89	60	75	+5	1.13	3		23.14	+1.25	77	3277	+302

DFN = Departure From Normal (Using 1961-90 Normals Period).

GDD = Growing Degree Days.

Precipitation (rain or melted snow/ice) in inches.

Precipitation Days = Days with precipitation of 0.01 inch or more.

Air Temperatures in Degrees Fahrenheit.

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## Winter Wheat Decisions 2001 - I. Rotation Benefits Resulting From Winter Wheat (Continued)

year soybeans are grown, the relative susceptibility of soybean varieties to those diseases, and other multiple stresses encountered by soybeans during the growing season. Nevertheless, two conclusions are apparent from Northern Corn Belt rotation experiments. First, soybeans apparently benefit more from longer rotations than corn does and, second, winter wheat benefits persist beyond just a single year following its production.

4. Soil structural stability has been consistently better after winter wheat than after soybeans in rotations in average yield situations. Fewer problems are likely to be encountered with soil crusting or soil erosion after winter wheat than after soybeans simply because the root mass, root distribution and stover decomposition characteristics are all superior with winter wheat. Gains in structural stability associated with winter wheat will be most evident after disturbance by tillage with field situations where inherent soil stability is low,

and in environments where soil erodibility is a serious threat.

### Conclusions:

The short-term economics of winter wheat plus double crop soybeans have always compared favorably with corn and soybeans alone in Southern Indiana (Purdue Crop Guide, ID-166). Wheat alone has tended to be less profitable relative to other alternatives in recent years, and this has been a contributing factor in acreage reduction. However, the long-term benefits of winter wheat need to be considered in any budgeting exercise, since the additional profitability in the corn and soybean years following winter wheat may more than compensate for the short-term income disadvantage commonly associated with wheat. Cash crop producers with long-term farming commitments and concerns for their soybean yields should seriously reconsider winter wheat.

Tony J. Vyn, Dept. of Agronomy, Purdue University.

Table 1. Soybean yields in three rotation systems near West Lafayette, Indiana (1983 - 1995).		
Rotation	<u>Tillage</u>	
	Chisel Plow	No-till
Yield (bu / ac)		
Cont. Soybean	39	40
Corn-Soybean	46	44
Corn-Soybean-Wheat	49	48
Source: Dr. M.V. Hickman, USDA-ARS, Purdue University. Data averaged for three levels of herbicide treatments.		

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